West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify

R13- 2826G

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Williams Ohio Valley Midstream LLC
Fort Beeler Gas Processing Plant
051-00127

John A. Benedict
Director

Issued: DRAFT • *Effective: DRAFT*

This permit supersedes and replaces R13-2826F issued on May 2, 2012.

Facility Location:	Moundsville, Marshall County, West Virginia
Mailing Address:	200 Caiman Drive, Moundsville, WV 26041
Facility Description:	Natural Gas Processing Facility
SIC Code:	1321
NAICS Code:	211112
UTM Coordinates:	Easting: 537.23 km • Northing: 4,408.34 km • Zone 17
Permit Type:	Modification
Description of Change:	Removal from service of a Caterpillar G3516LE Engine (12S); reactivation of a Caterpillar G342NA Engine (previously designated as 4S); decrease of fuel usage limits on Engines 18S, 19S, and 20S; increase of Maximum Design Heat Inputs (MDHIs) on Process Heaters (14S, 21S, 22S, 23S, 29S, and 30S), addition of a new Condensate Stabilizer Heater (31S), and increase of flare (27S) purge-gas throughput.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

This permit does not affect 45CSR30 applicability. The source is a nonmajor source subject to 45CSR30.

Unless otherwise stated WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart ZZZZ.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Plant Affiliation	Year Installed	Design Capacity	Control Device
4S	4E	Caterpillar G342NA Compressor Engine	All Plants	2010	225 HP	4C
6S	6E	Truck Loading	All Plants	2010	NA	None
7S	7E	Wastewater Tank	All Plants	2010	200 bbl	None
8S	8E	2 - 30,000 gallon Condensate Tanks 6 – 30,000 gallon NGL Tanks 6 – 60,000 gallon NGL Tanks	All Plants	2010	8@30,000 gallons 6@60,000 gallons	Pressure Vessels
14S	14E	Hot Oil Heater	120 MMCF/day Plant 1	2010	10.00 MMBtu/hr	None
15S	15E	Truck Loading	All Plants	2010	NA	None
16S	16E	Methanol Tank	120 MMCF/day Plant 1	2010	3,000 gal	None
17S	17E	Cryogenic Unit	120 MMCF/day Plant 1	2010	120 MMCF/day	None
18S	18E	Caterpillar 3612 LE Compressor Engine	120 MMCF/day Plant 1	2010	3,550 HP	18C
19S	19E	Caterpillar 3612 LE Compressor Engine	120 MMCF/day Plant 1	2010	3,550 HP	19C
20S	20E	Caterpillar 3612 LE Compressor Engine	120 MMCF/day Plant 1	2010	3,550 HP	20C
21S	21E	Regenerator Heater	120 MMCF/day Plant 1	2010	4.74 MMBtu/hr	None
22S	22E	Regenerator Heater	200 MMCF/day Plant 2	2011	6.60 MMBtu/hr	None
23S	23E	Medium Heater	200 MMCF/day Plant 2	2011	21.22 MMBtu/hr	None
24S	24E	Cryogenic Unit	200 MMCF/day Plant 2	2011	200 MMCF/day	None
25S	25E	Methanol Tank	200 MMCF/day Plant 2	2011	2,000 gal	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Plant Affiliation	Year Installed	Design Capacity	Control Device
26S	26E	Caterpillar 398 TA Compressor Engine	All Plants	2011	625 HP	26C
27S	27E	Flare	All Plants	2011	240 mmBtu/hr	n/a
28S	28E	Cryogenic Unit	200 MMCF/day Plant 3	2012	200 MMCF/day	None
29S	29E	Regenerator Heater	200 MMCF/day Plant 3	2012	6.60 MMBtu/hr	None
30S	30E	Medium Heater	200 MMCF/day Plant 3	2012	21.22 MMBtu/hr	None
31S	31E	Condensate Stabilizer Heater	All Plants	TBD	9.00 MMBtu/hr	None

1.1 Control Devices

Control Device ID	Control Device	Emission Unit	Pollutant	Control Efficiency
4C	Non Selective Catalytic Reduction (NSCR)	Caterpillar G342NA Compressor Engine	Nitrogen Oxides	99.2%
			Carbon Monoxide	85.4%
			Volatile Organic Compounds	25.3%(1)
			Formaldehyde	76.0%
18C 19C 20C	Oxidation Catalyst	Caterpillar 3612 LE Compressor Engines (18S, 19S, 20S)	Carbon Monoxide	90.0 %
			Volatile Organic Compounds	50.0 %
			Formaldehyde	85.0 %
26C	Non Selective Catalytic Reduction (NSCR)	Caterpillar 398 TA Compressor Engine	Nitrogen Oxides	94.9%
			Carbon Monoxide	95.3%
			Volatile Organic Compounds	78.7%(1)
			Formaldehyde	76%
27C	Flare	TCI USA, Inc. Model No. 4800 Flare	Volatile Organic Compounds	98%

(1) Based on a blended control efficiency for non-methane, non-ethane hydrocarbons (NMEHC) and Formaldehyde (HCHO).

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_X**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5 µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**PM_{10}**	Particulate Matter less than 10µm in diameter
C.S.R. *or* CSR	Codes of State Rules		
DAQ	Division of Air Quality	**Ppb**	Pounds per Batch
DEP	Department of Environmental Protection	**Pph**	Pounds per Hour
		Ppm	Parts per Million
dscm	Dry Standard Cubic Meter	**Ppm_V or ppmv**	Parts per Million by Volume
FOIA	Freedom of Information Act		
HAP	Hazardous Air Pollutant	**PSD**	Prevention of Significant Deterioration
HON	Hazardous Organic NESHAP		
HP	Horsepower	**Psi**	Pounds per Square Inch
lbs/hr	Pounds per Hour	**SIC**	Standard Industrial Classification
LDAR	Leak Detection and Repair		
M	Thousand	**SIP**	State Implementation Plan
MACT	Maximum Achievable Control Technology	**SO_2**	Sulfur Dioxide
		TAP	Toxic Air Pollutant
MDHI	Maximum Design Heat Input	**TPY**	Tons per Year
MM	Million	**TRS**	Total Reduced Sulfur
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour		
		UTM	Universal Transverse Mercator
NA	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
		VOL	Volatile Organic Liquids
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*;

2.4. Term and Renewal

2.4.1. This permit supersedes and replaces previously issued Permit R13-2826F. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2826 through R13-2826G and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and -10.3.]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] ***[State Enforceable Only]***

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power

for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

    1. The permit or rule evaluated, with the citation number and language;
    2. The result of the test for each permit or rule condition; and,
    3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings

for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Enforcement and Permits Review
(3AP12)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based

upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall not exceed 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

5.0. Source-Specific Requirements (Engines, 4S, 18S, 19S, 20S, 26S)

5.1. Limitations and Standards

5.1.1. To demonstrate compliance with Section 5.1.2, the quantity of natural gas that shall be consumed in the 225 hp natural gas fired reciprocating engine, Caterpillar G342NA (4S) shall not exceed 1,892 cubic feet per hour and 16.58 x 10^6 cubic feet per rolling 12 month period.

5.1.2. Maximum emissions from the 225 hp natural gas fired reciprocating engine, Caterpillar 342NA (4S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
4S	Nitrogen Oxides	0.05	0.22
	Carbon Monoxide	0.99	4.35
	Volatile Organic Compounds	0.28	1.22
	Formaldehyde	0.03	0.13
	Carbon Dioxide	248	1,088
	Methane	0.89	3.91

5.1.3. To demonstrate compliance with Section 5.1.4, the quantity of natural gas that shall be consumed in the 3,550 hp natural gas fired reciprocating engine, Caterpillar 3612 LE (18S) shall not exceed 23,284 cubic feet per hour and 181.61 x 10^6 cubic feet per rolling 12 month period. Additionally, 18S shall not operate in excess of 7,800 hours per rolling 12 month period.

5.1.4. Maximum emissions from the 3,550 hp natural gas fired reciprocating engine, Caterpillar 3612 LE (18S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
18S	Nitrogen Oxides	3.91	15.26
	Carbon Monoxide	2.15	8.39
	Volatile Organic Compounds	2.83	11.05
	Formaldehyde	0.31	1.21
	Carbon Dioxide	3,451	13,461
	Methane	42.81	166.96

5.1.5. To demonstrate compliance with Section 5.1.6, the quantity of natural gas that shall be consumed in the 3,550 hp natural gas fired reciprocating engine, Caterpillar 3612 LE (19S) shall not exceed 23,284 cubic feet per hour and 181.61 x 10^6 cubic feet per rolling 12 month period. Additionally, 19S shall not operate in excess of 7,800 hours per rolling 12 month period.

5.1.6. Maximum emissions from the 3,550 hp natural gas fired reciprocating engine, Caterpillar 3612 LE (19S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
19S	Nitrogen Oxides	3.91	15.26
	Carbon Monoxide	2.15	8.39
	Volatile Organic Compounds	2.83	11.05
	Formaldehyde	0.31	1.21
	Carbon Dioxide	3,451	13,461
	Methane	42.81	166.96

5.1.7. To demonstrate compliance with Section 5.1.8, the quantity of natural gas that shall be consumed in the 3,550 hp natural gas fired reciprocating engine, Caterpillar 3612 LE (20S) shall not exceed

23,284 cubic feet per hour and 181.61 x 10^6 cubic feet per rolling 12 month period. Additionally, 20S shall not operate in excess of 7,800 hours per rolling 12 month period.

5.1.8. Maximum emissions from the 3,550 hp natural gas fired reciprocating engine, Caterpillar 3612 LE (20S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
20S	Nitrogen Oxides	3.91	15.26
	Carbon Monoxide	2.15	8.39
	Volatile Organic Compounds	2.83	11.05
	Formaldehyde	0.31	1.21
	Carbon Dioxide	3,451	13,461
	Methane	42.81	166.96

5.1.9. To demonstrate compliance with Section 5.1.10, the quantity of natural gas that shall be consumed in the 625 hp natural gas fired reciprocating engine, Caterpillar 398 TA (26S) shall not exceed 5,186 cubic feet per hour and 45.43 x 10^6 cubic feet per rolling 12 month period.

5.1.10. Maximum emissions from the 625 hp natural gas fired reciprocating engine, Caterpillar 398 TA (26S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
26S	Nitrogen Oxides	0.69	3.02
	Carbon Monoxide	0.69	3.02
	Volatile Organic Compounds	0.09	0.39
	Formaldehyde	0.03	0.14
	Carbon Dioxide	681	2,982
	Methane	1.10	4.83

5.1.11. Requirements for Use of Catalytic Reduction Devices

a. Natural gas compressor engines equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to deliver additional fuel when required to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 0.5%. The automatic air/fuel ratio controller shall also incorporate dual-point exhaust gas temperature and oxygen sensors which provide temperature and exhaust oxygen content differential feedback. Such controls shall ensure proper and efficient operation of the engine and NSCR air pollution control device;

b. Natural gas compressor engines equipped with selective catalytic reduction (SCR) air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/SCR combination under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine, ammonia injection and SCR device, monitor emission levels downstream of the catalyst element and limit ammonia slip to less than 10 ppm_v;

c. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and

d. No person shall knowingly:
   1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of this permit;
   2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of this permit; or
   3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

5.1.12. The 607 hp natural gas fired reciprocating engine, Waukesha 2895 GSI (2S) and 42 mmscfd J-T Skid (9S) shall be permanently shut down and removed prior to start-up of the 200 mmscf/day Cryogenic Unit (28S).

5.1.13 As of the issuance date of this permit, the 1,340 hp natural gas fired reciprocating engine, Caterpillar G3516LE (12S) shall be permanently shut down. As of 90 days from the issuance date of this permit, this engine shall be permanently removed from the plant premises or put in a state of permanent storage with all fuel and service connections cut.

5.1.14 **(Caterpillar 398 TA Compressor Engine 26S)**
What standards apply to reciprocating compressor affected facilities? You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section.

(1) Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

(2) Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the r od packing has not yet been replaced.
[40CFR§60.5385(a)]

5.1.15. **(Caterpillar 3612 LE Compressor Engines 18S, 19S, 20S)**
Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.
[40CFR§60.4233(e)]

5.1.16. **(Caterpillar 3612 LE Compressor Engines 18S, 19S, 20S)**
If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

   1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records

of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.

2. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40CFR§60.4243(b)]

5.2. Monitoring Requirements

5.2.1. Catalytic Oxidizer Control Devices

a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The registrant shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
2. Following operating and maintenance recommendations of the catalyst element manufacturer.

5.3. Testing Requirements

5.3.1. See Facility-Wide Testing Requirements Section 3.3.

5.4. Recordkeeping Requirements

5.4.1. To demonstrate compliance with sections 5.1.1-5.1.10 the permittee shall maintain records of the amount and type of fuel consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

5.5. Reporting Requirements

5.4.1. See Facility-Wide Reporting Requirements Section 3.5.

6.0. Source-Specific Requirements (Heaters 14S 21S, 22S, 23S, 29S, 30S, 31S)

6.1. Limitations and Standards

6.1.1. Maximum Design Heat Input. The maximum design heat input for the Hot Oil Heater (14S) shall not exceed 10.00 mmBtu/hr.

6.1.2. Maximum emissions from the 10.00 MMBtu/hr Hot Oil Heater (14S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
14S	Nitrogen Oxides	0.98	4.30
	Carbon Monoxide	0.82	3.61
	Carbon Dioxide	1,169	5,122

6.1.3. To demonstrate compliance with Section 6.1.2, the quantity of natural gas that shall be consumed in the 10.00 MMBtu/hr Hot Oil Heater (14S) shall not exceed 237,516 cubic feet per day and 86.69 x 10^6 cubic feet per year.

6.1.4. Maximum Design Heat Input. The maximum design heat input for the Regenerator Heater (21S) shall not exceed 4.74 mmBtu/hr.

6.1.5. Maximum emissions from the 4.74 MMBtu/hr Regenerator Heater (21S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
21S	Nitrogen Oxides	0.47	2.04
	Carbon Monoxide	0.39	1.71
	Carbon Dioxide	555	2,429

6.1.6. To demonstrate compliance with Section 6.1.5, the quantity of natural gas that shall be consumed in the 4.74 MMBtu/hr Regenerator Heater (21S) shall not exceed 112,655 cubic feet per day and 41.12 x 10^6 cubic feet per year.

6.1.7. Maximum Design Heat Input. The maximum design heat input for the Regenerator Heaters (22S, 29S) shall not exceed 6.60 mmBtu/hr.

6.1.8. Maximum Yearly Operation Limitation. The maximum yearly hours of operation for each of the 6.60 MMBtu/hr Regenerator Heaters (22S, 29S) shall not exceed 4,380 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

6.1.9. Maximum emissions from each of the 6.60 MMBtu/hr Regenerator Heaters (22S, 29S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
22S 29S	Nitrogen Oxides	0.65	1.42
	Carbon Monoxide	0.54	1.19
	Carbon Dioxide	772	1,690

6.1.10. To demonstrate compliance with Section 6.1.9, the quantity of natural gas that shall be consumed in each of the 6.60 MMBtu/hr Regenerator Heaters (22S, 29S) shall not exceed 156,723 cubic feet per day and 28.60 x 10^6 cubic feet per year.

6.1.11. Maximum Design Heat Input. The maximum design heat input for each of the Medium Heaters (23S, 30S) shall not exceed 21.22 mmBtu/hr.

6.1.12. Maximum emissions from each of the 21.22 MMBtu/hr Medium Heaters (23S, 30S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
23S 30S	Nitrogen Oxides	2.08	9.11
	Carbon Monoxide	1.75	7.65
	Particulate Matter-10	0.16	0.69
	Carbon Dioxide	2,481	10,866

6.1.13. To demonstrate compliance with Section 6.1.12, the quantity of natural gas that shall be consumed in each of the 21.22 MMBtu/hr Medium Heater (23S, 30S) shall not exceed 503,877 cubic feet per day and 183.92 x 10^6 cubic feet per year.

6.1.14. Maximum Design Heat Input. The maximum design heat input for the Condensate Stabilizer Heater (31S) shall not exceed 9.00 mmBtu/hr.

6.1.15. Maximum emissions from each of the 9.00 MMBtu/hr Condensate Stabilizer Heater (31S) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
31S	Nitrogen Oxides	0.88	3.86
	Carbon Monoxide	0.74	3.25
	Particulate Matter-10	0.07	0.29
	Carbon Dioxide	1,052	4,609

6.1.16. To demonstrate compliance with Section 6.1.12, the quantity of natural gas that shall be consumed in the 9.00 MMBtu/hr Condensate Stabilizer Heater (31S) shall not exceed 213,713 cubic feet per day and 78.01 x 10^6 cubic feet per year.

6.1.17. **Hot Oil Heater (14S), Regenerator Heaters (21S, 22S, 29S), Medium Heaters (23S, 30S), Condensate Stabilizer Heater (31S).** No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]

6.1.18. **Hot Oil Heater (14S), Medium Heaters (23S, 30S).** Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).
[40CFR§60.40c(a)]

6.2. Monitoring Requirements

6.2.1. For the purpose of determining compliance with the opacity limits of 45CSR2, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

6.3. Testing Requirements

6.3.1. Compliance with the visible emission requirements of section 6.1.14 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 6.1.14. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

6.4. Recordkeeping Requirements

6.4.1. To demonstrate compliance with sections 6.1.1-6.1.3, the permittee shall maintain records of the amount of natural gas consumed in the 10.00 MMBtu/hr Hot Oil Heater (14S). Said records shall

be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

6.4.2. To demonstrate compliance with sections 6.1.4-6.1.6, the permittee shall maintain records of the amount of natural gas consumed in the 4.74 MMBtu/hr Regenerator Heater (21S). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

6.4.3. To demonstrate compliance with sections 6.1.7-6.1.10, the permittee shall maintain records of the hours of operation and the amount of natural gas consumed in each of the 6.60 MMBtu/hr Regenerator Heaters (22S, 29S). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

6.4.4. To demonstrate compliance with sections 6.1.11-6.1.13, the permittee shall maintain records of the amount of natural gas consumed in each of the 21.22 MMBtu/hr Medium Heaters (23S, 30S). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

6.4.5. To demonstrate compliance with sections 6.1.14-6.1.16, the permittee shall maintain records of the amount of natural gas consumed in the 9.00 MMBtu/hr Condensate Stabilizer Heater (31S). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

6.4.6. **Hot Oil Heater (14S), Medium Heaters (23S, 30S).** Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
[40CFR§60.48(c)(g)(1)]

6.4.7. **Hot Oil Heater (14S), Medium Heaters (23S, 30S).** As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
[40CFR§60.48 (c)(g)(2)]

6.4.8. **Hot Oil Heater (14S), Medium Heaters (23S, 30S).** As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO2standard, and/or fuels, excluding

coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.
[40CFR§60.48(c)(g)(3)]

6.4.9. The permittee shall maintain records of all monitoring data required by Section 6.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

6.5. Reporting Requirements

6.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

6.5.2. **Hot Oil Heater (14S), Medium Heaters (23S, 30S).** The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

1. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

2. If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

3. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

4. Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

[40CFR§60.48c(a)]

6.5.3. **Hot Oil Heater (14S), Medium Heaters (23S, 30S).** The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.
[40CFR§60.48c(j)]

7.0. Source-Specific Requirements (Cryogenic Units, 17S, 24S, 28S)

7.1. Limitations and Standards

7.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the Cryogenic Unit (17S) shall not exceed 120 mmscf/day (total). Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

7.1.2. Maximum Throughput Limitation. The maximum wet natural gas throughput to the Cryogenic Unit (24S) shall not exceed 200 mmscf/day (total). Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

7.1.3. Maximum Throughput Limitation. The maximum wet natural gas throughput to the Cryogenic Unit (28S) shall not exceed 200 mmscf/day (total). Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

7.1.4. The permittee shall not exceed the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor or light liquid (as applicable) listed for each Cryogenic Plant in Attachment N of Permit Application R13-2826G.

7.1.5. The permittee shall, at a minimum, institute a quarterly leak detection monitoring program for all: (1) valves in gas/vapor service, (2) valves in light liquid service, and (3) pump seals in light liquid service in each Cryogenic Plant. Leaks shall be defined as pollutant concentrations in excess of 10,000 ppmv. When a leak is detected, the permittee shall take corrective action to repair the connector and retest the connector to verify the efficacy of the repair. Where more stringent, compliance with the applicable standards of 40 CFR 60, Subpart KKK shall determine compliance with 7.1.5.

7.1.6. The permitted facility shall comply with all applicable provisions of 40CFR60 Subpart KKK, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated. Recordkeeping and reporting requirements shall be conducted in accordance with §60.635 and §60.636. These reports shall be submitted in accordance with the time lines and in the order set forth in §60.636 and submitted to the addresses listed in Section 3.5.3. of this permit.

7.2. Recordkeeping Requirements

7.2.1. To demonstrate compliance with sections 7.1.1 – 7.1.3, the permittee shall maintain records of the amount of natural gas processed in the Cryogenic Units (17S, 24S, 28S). Said records required shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

8.0. Source-Specific Requirements (Natural Gas Liquid Loading Racks, 6S, 15S)

8.1. Limitations and Standards

8.1.1. Maximum Throughput Limitation. The maximum natural gas liquids throughput to the Natural Gas Liquid Loading Rack (Truck Pump #1, 6S) shall not exceed 143,000 gal/day and 52,100,000 gal/yr. Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

8.1.2. Maximum Throughput Limitation. The maximum natural gas liquids throughput to the Natural Gas Liquid Loading Rack (Truck Pump #2, 15S) shall not exceed 571,000 gal/day and 208,500,000 gal/yr. Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

8.1.3. The Natural Gas Liquid Loading Rack (6S) shall be operated in accordance with the plans and specifications filed in Permit Applications R13-2826 and R13-2826B. The system will employ a vapor balance (closed system) to route all vapors back to the tanks.

8.1.4. Tank trucks loading at the Natural Gas Loading Rack (15S) shall be filled via the pressure differential between the NGL bulk storage tanks and the empty tanks on the trucks. There shall be no vents in this system, other than emergency pressure relief. This includes the lines between the NGL bulk storage tanks and the tank trucks as well as the tank trucks.

8.2. Recordkeeping Requirements

8.2.1. To demonstrate compliance with sections 8.1.1 and 8.1.2 the permittee shall maintain records of the amount of natural gas liquids processed in the Natural Gas Liquid Loading Racks (6S, 15S). Said records required shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

9.0. Source-Specific Requirements (Flare Control Device, APCFLARE)

9.1. Limitations and Standards

9.1.1. The permittee shall install a flare (27S) to control VOC emissions from maintenance activities as needed. To demonstrate compliance with Section 9.1.2, the quantity of flare gas that shall be consumed in the flare shall not exceed 5,000,000 cubic feet per year. Compliance with the flare gas throughput limit shall be demonstrated using a rolling 12-month total.

9.1.2. Maximum emissions from the flare (27S) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	26.13	0.69
Nitrogen Oxides	16.32	0.43
Carbon Monoxide	88.80	2.33
Particulate Matter-10	1.79	0.05
Carbon Dioxide	28,054	735
Methane	72	2.00

9.1.3. The flare (27S) subject to this section shall be designed and operated in accordance with the following:

a Flare shall be non-assisted.

b. Flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

c. Flare shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.

d. A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

H_T=Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K=Constant=

$$1.740\times10^{-7}\left(\frac{1}{ppmv}\right)\left(\frac{\text{g-mole}}{\text{scm}}\right)\left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i=Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).
H_i=Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 if published values are not available or cannot be calculated.
n=Number of sample components.

e. Nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided by 9.1.3.f and 9.1.3.g of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).

f. Nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 9.1.3.e. of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

g. Nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 9.1.3.e. of this section, less than the velocity V_{max}, as determined by the calculation specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{max})=(H_T+28.8)/31.7$$

Where:
V_{max}=Maximum permitted velocity, m/sec.
28.8=Constant.
31.7=Constant.
H_T=The net heating value as determined in 9.1.3.d of this section

9.1.4. The permittee is not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2) until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 9.3.2, but the permittee is required to conduct a flare design evaluation in accordance with section 9.4.2. Alternatively, the permittee may elect to demonstrate compliance with the flare design criteria requirements of section 9.1.3 by complying with the compliance assessment testing requirements of section 9.3.2.

9.2. Monitoring Requirements

9.2.1. In order to demonstrate compliance with the requirements of 9.1.3.c, the permittee shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.

9.2.2. The permittee shall monitor the throughput to the flare (27S) on a monthly basis.

9.3. Testing Requirements

9.3.1. In order to demonstrate compliance with the flare opacity requirements of 9.1.3.b the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be

trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.

9.3.2. The Director may require the permittee to conduct a flare compliance assessment to demonstrate compliance with section 9.1.3. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the permittee to conduct Test Method 4 in conjunction with Test Method 18.

9.4. Recordkeeping Requirements

9.4.1. For the purpose of demonstrating compliance with section 9.1.3.c and 9.2.1, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.

9.4.2 For the purpose of demonstrating compliance with section 9.1.3 and 9.3.2, the permittee shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.

9.4.3. The permittee shall document and maintain the corresponding records specified by the on-going monitoring requirements of 9.2 and testing requirements of 9.3.

9.4.4. For the purpose of demonstrating compliance with section 9.1.3.b, the permittee shall maintain records of the visible emission opacity tests conducted per Section 9.3.1.

9.4.5. All records required under Section 9.4 shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

9.5. Reporting Requirements

9.5.1 If permittee is required by the Director to demonstrate compliance with section 9.3.2, then the permittee shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The permittee shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.

9.5.2. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

9.5.3. Any deviation(s) from the flare design and operation criteria in Section 9.1.3 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of discovery of such deviation.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____ _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.